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Underutilised labour

Labour Statistics: Concepts, Sources and Methods

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This chapter is currently under review.

In a broad sense, labour underutilisation encapsulates the extent to which people's desire for work is not being met. It covers people who are not working but want to work, and those who are working but want to work more. A measure of underemployment supplements other measures of underutilisation of labour, such as the number of unemployed people and the number of marginally attached discouraged jobseekers, to inform the community about the performance of the labour market. In conceptual terms, underemployment, unemployment and marginal attachment to the labour force all measure different aspects of labour underutilisation. In isolation these measures provide important contextual information about the degree to which labour is being underutilised.

Concepts and international guidelines

Underutilised labour

Underutilisation measures provide more comprehensive information on the state of the labour market, and measures the extent to which all available labour force resources are not being fully used in the economy.

The need to produce broader measures of underutilisation reflects the need to provide more comprehensive information than merely the unemployment rate¹. The unemployment rate is often one of the most cited indicators of underutilisation within the labour market. However, the standard definition used to define unemployment is necessarily quite restrictive. Consequently, the unemployment rate gives a relatively narrow view of the degree to which labour is being underutilised in the labour market. The production of

broader measures of underutilisation is intended to provide a more comprehensive view of the labour market.

While these specific measures provide important information about labour underutilisation, individually they are narrow and in isolation do not provide a comprehensive picture of the degree to which labour is being underutilised in the labour market as a whole. By bringing various measures together, a broader picture of the degree to which labour is being underutilised can be obtained.

The labour force underutilisation rate and the extended labour force underutilisation rate are both aggregate measures that provide a broader picture of labour underutilisation.

Underemployment

Underemployment is defined by the International Labour Organization (ILO) as the underutilisation of the productive capacity of the employed population.

It describes a situation where the potential labour of employed people is not fully utilised. Along with unemployment, it is an important indicator of unused capacity given current labour market conditions.

Two related concepts are recognised in the current international standards when measuring underemployment: time-related underemployment, which reflects insufficient hours of work in relation to an alternative employment situation that a person is willing and available to engage in; and inadequate employment situations, which refers to all those in employment who want to change their work activities and/or work environment for a set of reasons chosen according to national circumstances. Such reasons might include: insufficient use and mismatch of skills and experience; inadequate income; and excessive hours of work. Employed persons may be simultaneously in time-related underemployment and inadequate employment situations.

Previous international standards on underemployment identified two concepts of underemployment: one reflecting an insufficient volume of work, referred to as visible underemployment; and one reflecting an insufficient use of skills and experience or low productivity, termed invisible underemployment. Visible underemployment is closely related to time-related underemployment, while invisible underemployment, as it was previously defined, is now one component of inadequate employment situations.

Time-related underemployment

According to the international standard, time-related underemployment exists when the hours of work of an employed person are below a threshold, and are insufficient in relation to an alternative employment situation in which the person is willing and available to

engage ([Nineteenth International Conference of Labour Statisticians 2013 \(http://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf\)](http://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf)). The table below sets out the international definition for time-related underemployment.

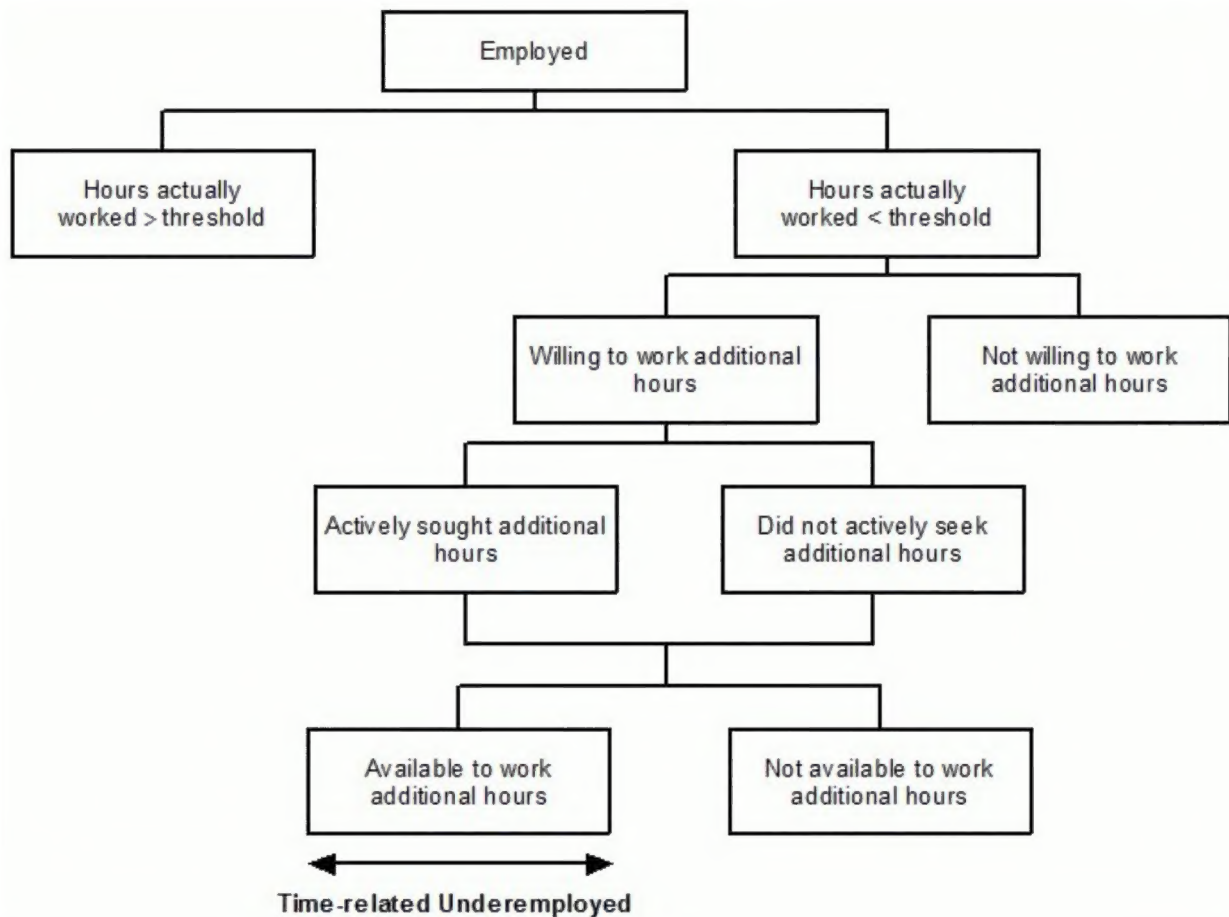
International Definition of Time-Related Underemployment (ICLS 2013)

Persons in time-related underemployment are defined as all persons in employment who, during a short reference period, wanted to work additional hours, whose working time in all jobs was less than a specified hours threshold, and who were available to work additional hours given an opportunity for more work, where:

- The working time concept is hours actually worked or hours usually worked, dependent on the measurement objective (short or long-term situations) and in accordance with the international statistical standards on the topic.
- Additional hours may be hours in the same job, in an additional job(s) or in a replacement job(s).
- The hours threshold is based on the boundary between full-time and part-time employment, on the median or modal values of the hours usually worked of all persons in employment, or on working time norms as specified in relevant legislation or national practice, and set for specific worker groups.
- Available for additional hours should be established in reference to a set short reference period that reflects the typical length of time required in the national context between leaving one job and starting another.

The concepts underpinning the international definition of time-related underemployment are shown in the framework below. The framework classifies persons who satisfy each of the criteria outlined above - willingness to work additional hours (note that persons actively seeking additional hours of work are distinguished from those who are not); availability to work additional hours; and worked less than a threshold relating to working time - as time-related underemployed.

Conceptual Framework: Time-Related Underemployment



Among persons in time-related underemployment, depending on the working time concept applied (i.e. who wanted and were “available” to work “additional hours”), it is possible to identify the following groups:

- persons whose hours usually and actually worked were below the “hours threshold”;
- persons whose hours usually worked were below the “hours threshold”, but whose hours actually worked were above the threshold; and
- persons “not at work”, or whose hours actually worked were below the “hours threshold” due to economic reasons (e.g. a reduction in economic activity, including temporary lay-off and slack work, or the effect of the low or off season).

The current international standard (ICLS 2013) also notes that countries should include, as part of a broad set of statistical indicators, the following in relation to underutilised labour:

- the rate of volume of time-related underemployment;
- activities to “seek employment” by persons in employment, indicating pressure on the labour market;
- inadequate employment situations due to skills, income or excessive working time, according to the relevant international statistical standards;
- slack work among the self-employed; and

- gross labour market flows between labour force statuses and within employment.

Measures of labour underutilisation

Labour underutilisation measures can be divided into two broad types of measurements: headcount measures and volume measures. Headcount measures of labour underutilisation are based on the number of persons who are underemployed, unemployed or marginally attached to the labour force. Volume underutilisation measures relate to the number of potential hours of labour that are not utilised. Whether persons are unemployed or underemployed, not all persons who are in search of work (or more work) are seeking the same number of hours of work. For this reason, volume measures of underutilisation are often more relevant for analysing the spare capacity of the labour force than headcount measures. The various labour underutilisation measures that the ABS produces are discussed below.

Unemployed

Measures of unemployment provide important information on the supply of labour that is immediately available from persons who are currently not employed. The ABS produces both headcount and volume measures of unemployment. The unemployment rate is the number of persons that are unemployed, expressed as a percentage of the labour force. The volume unemployment rate is the hours of labour sought by unemployed persons, expressed as a percentage of the potential hours in the labour force. Total potential hours in the labour force is comprised of the number of hours sought by the unemployed, the number of additional hours sought by the underemployed, and the number of hours usually worked by all employed persons.

Underemployed

Measures of underemployment provide important information on the degree to which labour is being underutilised in the employed population of the labour market. The ABS produces both headcount (by population) and volume (hours based) measures of underemployment. The underemployment rate is the number of underemployed workers, expressed as a percentage of the labour force. The volume underemployment rate is the additional hours of labour preferred by underemployed workers, expressed as a percentage of the potential hours in the labour force.

Definitions used in ABS surveys

Underemployment – Measurement and scope

Underemployed workers are employed people who would prefer, and are available for, more hours of work than they currently have. They comprise:

- part-time workers who would prefer to work more hours and were available to start work with more hours, either in the reference week or in the four weeks subsequent to the survey; and
- full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available). It is assumed that these people would prefer to work full-time in the reference week and would have been available to do so.

For practical reasons, ABS measurement of underemployment is confined to time-related underemployment. The ABS underemployment framework is based on separating employed persons into two mutually exclusive groups:

- workers who are considered to be fully employed; and
- workers who are not fully employed.

Fully employed workers comprise:

- employed persons who worked full-time during the reference week (including persons who usually work part-time);
- employed persons who usually work full-time, but worked part-time in the reference week for non-economic reasons (including illness or injury, leave, holiday or flex time, and personal reasons); and
- part-time workers (who usually work part-time and did so in the reference week) who do not want to work additional hours.

Full-time workers who worked part-time in the reference week for non-economic reasons are considered to be fully employed because they usually work full-time, and worked part-time in the reference week voluntarily.

Persons who are not fully employed comprise:

- part-time workers (who usually work part-time and did so in the reference week) who want to work more hours; and
- full-time workers who worked part-time in the reference week for economic reasons (such as being stood down or insufficient work being available).

Time-related underemployed workers (as defined in the ILO guidelines) are a subgroup of persons 'not fully employed'.

The ABS underemployment framework further classifies persons who are not fully employed according to whether they were looking for and/or available to start work with

more hours and according to the number of additional hours sought. The framework further defines workers who are underemployed, comprising:

- part-time workers who would prefer to work more hours and were available to start work with more hours, either in the reference week or in the four weeks following the survey; and
- full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available).

Underemployment – Expanded analytical series

As a result of the implementation of the Outcomes of the Labour Household Surveys Content Review, 2012 (cat. no. 6107), the ABS also publishes an analytical series which expands the scope of headline underemployment measures to include all employed persons.

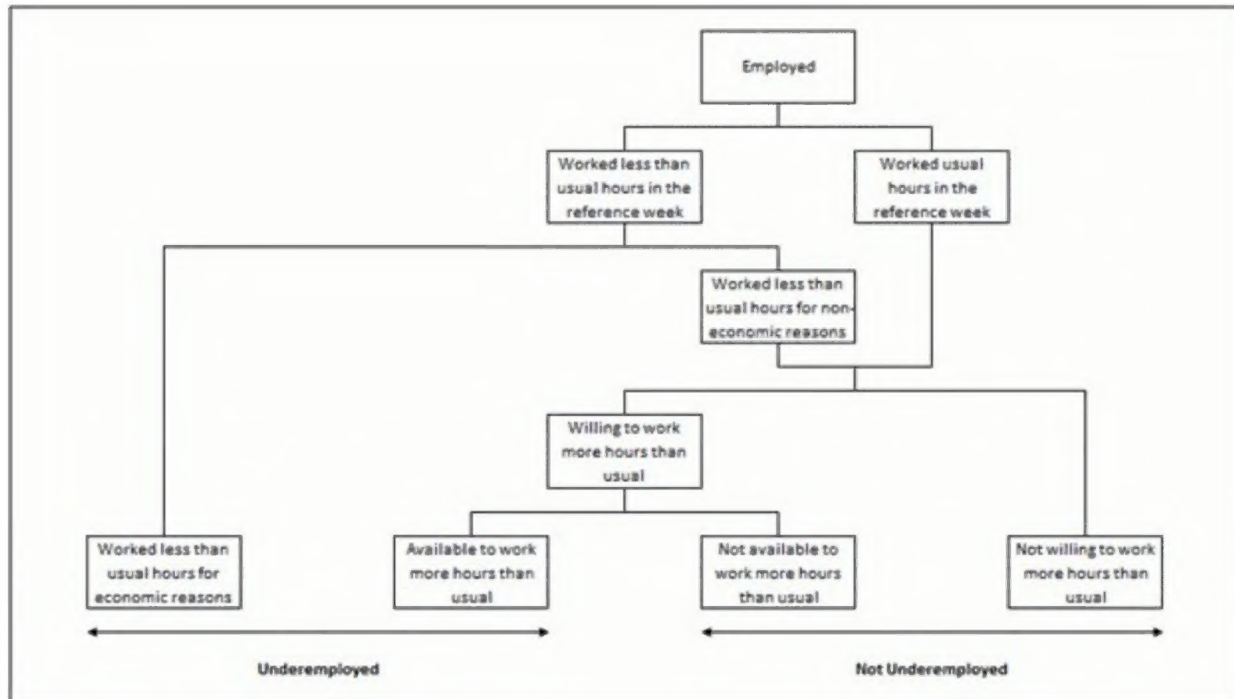
Headline measures of underemployment include those persons who are employed part-time who are wanting, and available, to work more hours. The expanded analytical underemployment series includes all employed persons who want, and are available, to work more hours, and all employed persons whose actual hours were fewer than usual hours for economic reasons.

The following additional groups are therefore included in the expanded analytical measures of underemployment:

- full-time workers who would prefer to work more hours and were available to start work with more hours, either in the reference week or in the four weeks following the survey;
- full-time workers who still worked full-time hours in the reference week, but worked less than their usual full-time hours for economic reasons (such as being stood down or insufficient work being available); and
- part-time workers who worked less than their usual part-time hours during the reference week for economic reasons.

The ABS framework for the expanded analytical underemployment series is shown below.

ABS Framework: Expanded analytical underemployment series



Underutilisation rate

The labour force underutilisation rate is defined as the sum of the number of persons unemployed and underemployed, expressed as a percentage of the labour force.

The labour force underutilisation rate is an aggregate measure of underutilisation. It can also be viewed as the sum of the unemployment rate and the underemployment rate.

The labour force underutilisation rate is also expressed as a volume measure in the volume labour force underutilisation rate. The volume labour force underutilisation rate is expressed as the total volume of underutilised labour in the labour force (hours sought by unemployed persons, plus additional hours preferred by underemployed persons), as a percentage of the potential hours in the labour force.

The extended labour force underutilisation rate is expressed as the sum of the unemployed, the expanded analytical measures of underemployment and two marginally attached groups, as a proportion of the augmented labour force (including the number of people in three marginally attached groups).

The extended labour force underutilisation rate is the broadest measure of underutilisation the ABS currently produces, and takes the measure of underutilised labour beyond what is conventionally measured in the labour force. The measure includes, in addition to the unemployed and the expanded measures of underemployed, two groups of persons with marginal attachment to the labour force:

- persons actively looking for work, who were not available to start work in the reference

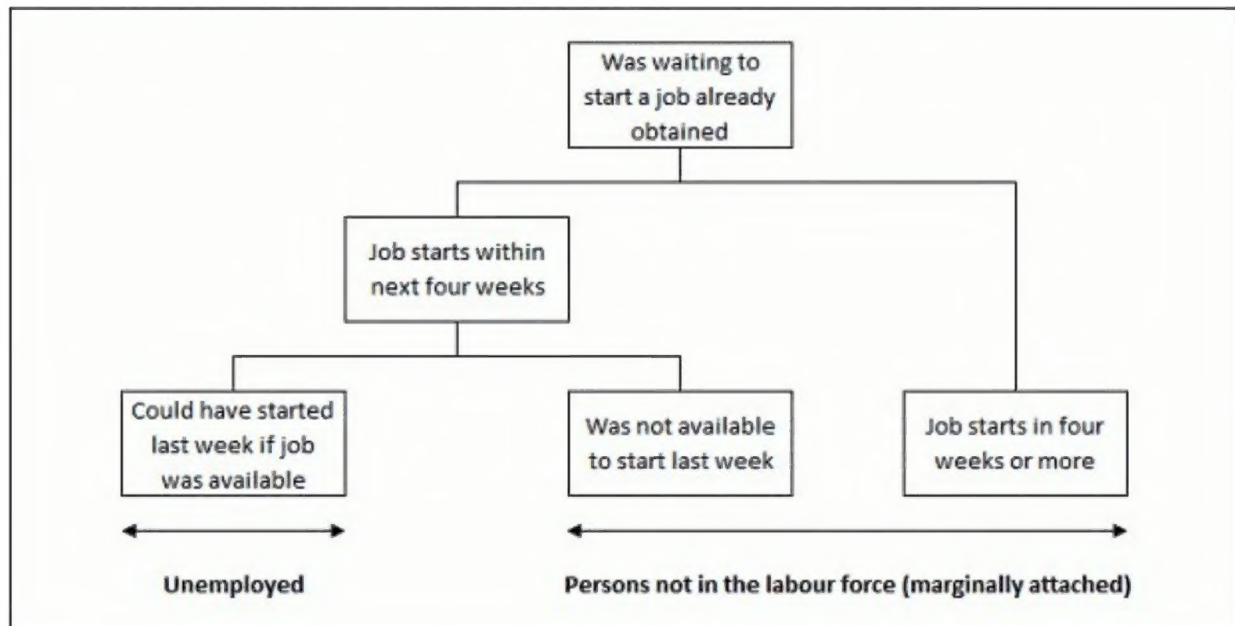
week, but were available to start work within four weeks, and

- discouraged job seekers, defined as persons who want to work and could start work within four weeks if offered a job, but who have given up looking for work for reasons associated with the labour market.

When measuring the extended underutilisation rate as a proportion, the extended measure of the total labour force is augmented by the two marginally attached groups above plus a third group – persons who had a job to go to. This marginally attached group covers all people who were attached to a job, but were not classed as either employed or unemployed, including:

- persons who had accepted a job offer but had not yet started working. These people are similar to unemployed future starters, however they were not classed as unemployed, because either they were not starting their job within the following four weeks, or they were not available to start in the reference week, had been available.
- persons who were on workers compensation or on leave from their jobs without pay and were planning to return to work at a later date in the future. This includes people who were available to return in the following four weeks and also people who weren't available until four weeks or later.

ABS Framework: Waiting to start a job already obtained



The population with marginal attachment to the labour force is a relatively large and heterogeneous group. It includes persons who may have a strong likelihood of joining the labour force in the near future, as well as some who have little or no commitment to finding employment. The ABS does provide statistics about this large and diverse group, but does not include the whole group in its broadest supplementary measure of labour

underutilisation. There may be other subgroups (in addition to the two marginally attached groups identified above) which fit the requirements of underutilised labour resources.

Comparison of ABS and international definitions

The ABS underemployment framework is consistent with the ILO concept of time-related underemployment, although the international standards do not specifically identify the group 'fully employed workers' as is the case in the ABS framework.

Worked less than a threshold relating to working time

The international definition of time-related underemployment includes a threshold relating to working time. Only persons actually working less than the threshold are included in statistics of time-related underemployment. The international standards do not specify the threshold to be used. Instead they suggest a number of alternative approaches which may be suitable.

The threshold used in the current ABS underemployment framework is based on the boundary between full-time and part-time work. Only those employed persons actually working less than 35 hours in the reference week may be further classified as not fully employed. Persons actually working less than 35 hours in the reference week include part-time workers (persons who usually work part-time and did so in the reference week), as well as some full-time workers who actually worked part-time hours in the reference week for non-economic reasons.

Only full-time workers who worked part-time in the reference week for economic reasons are classified as not fully employed in the current ABS framework. Those who worked part-time in the reference week for non-economic reasons are assumed to be fully employed, on the basis that they usually work full-time, and that they 'voluntarily' worked part-time in the reference week.

In the case of the expanded analytical measures of underemployment, the threshold used to determine underemployment is usual hours. This threshold is variable and specific to each individual based on their usual working patterns. The variable threshold broadens the measure to encompass more circumstances of time-related underemployment.

Willingness to work additional hours

In the ABS framework, willingness to work additional hours is tested by asking part-time workers whether they want to work additional hours. Starting from the July 2014 reference month, all employees are asked whether they want to work additional hours. This additional information allows for the production of the expanded analytical underemployment series.

Availability to work additional hours

In the ABS framework, availability to work additional hours is determined both in terms of immediate availability (i.e. available in the reference week), and availability within the following four weeks. The international guidelines are not prescriptive on this issue.

Volume of time-related underemployment

The ABS previously produced annual volume measures of underemployment and underutilisation. Volume measures relate to the quantum of unused potential hours of labour, and were previously compiled using information collected in the Job Search Experience Survey, the Underemployed Workers Survey and the Labour Force Survey (LFS). They are often more relevant for analysing the spare capacity of the labour force than the usual 'headcount' measures, as they take into account the number of hours sought and additional hours preferred by individuals.

Starting from the July 2014 reference month of the LFS, the ABS increased the frequency of the volume measures of labour underutilisation from an annual to a quarterly basis, estimated directly from LFS data. These data were made available from November 2015. For more information, see [Information Paper: Forthcoming Changes to Labour Force Statistics, Oct 2014](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A8F931AC3584272ECA257E5200194DB3?opendocument). (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A8F931AC3584272ECA257E5200194DB3?opendocument>)

Data sources

Estimates of labour unemployment, underemployment and underutilisation are available monthly from Labour Force, Australia:

- underemployment (headcount);
- unemployment (headcount);
- unemployment rate; and
- underutilisation rate.

Estimates of persons not fully employed are available from:

- the Labour Force Survey (LFS); and
- the supplement to the LFS, the Participation, Job Search and Mobility (PJSM) Survey.

Labour Force Survey

The LFS collects information on underemployment on a monthly basis. The survey classifies workers according to the framework outlined above:

- part-time workers who would prefer to work more hours and were available to start work with more hours, either in the reference week or in the four weeks following the survey; and
- full-time workers who worked part-time hours in the reference week for economic reasons.

Based on the new survey starting with the July 2014 reference month, the ABS increased the reporting frequency of the underemployment rate and labour force underutilisation rate from a quarterly to a monthly basis. The underemployment and underutilisation information was integrated into LFS output, together with unemployment information, from November 2015. For more information, see Labour Force, Australia, Nov 2015 and [Information Paper: Forthcoming Changes to Labour Force Statistics, Oct 2014 \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A8F931AC3584272ECA257E5200194DB3?opendocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A8F931AC3584272ECA257E5200194DB3?opendocument).

In addition to monthly headcount underemployment and underutilisation measures, the ABS produces volume measures of underemployment and underutilisation on a quarterly basis.

For more information on the content and methodology of the LFS, see the section : Labour Force Survey.

Participation, Job Search and Mobility (PJSM)

The annual LFS supplementary topic, PJSM, is the primary ABS data source on underemployment. The survey classifies workers according to the framework outlined above, comparable with ICLS 2013 and the LFS quarterly measure, but with a much wider range of information: for example, on the, steps taken to find work, and difficulties finding work. For more information on the content and methodology of this survey, see the relevant section: Participation, Job Search and Mobility.

Footnotes

1. 'Beyond the measurement of unemployment and underemployment; The case for extending and amending labour market statistics', International Labour Organisation (ILO) Underutilisation Working Group Report (2011).